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| 09/854,464 | 05/15/2001 | Evangelos Trifon Laskaris | 839-1063 | 8068 |

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NIXON & VANDERHYE P.C.
1100 North Glebe Road, 8th Floor
Arlington, VA 22201

EXAMINER

CIRIC, LJILJANA V

| | |
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| ART UNIT | PAPER NUMBER |
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3743

DATE MAILED: 12/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/854,464

Applicant(s)
Laskaris et al.

Examiner

Ljiljana V. Ciric *LC*

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Oct 4, 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above, claim(s) 1-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Oct 3, 2001 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3 6) ☐ Other:

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DETAILED ACTION

Election/Restriction

1. Applicant's election without traverse of the subject matter of Group II, drawn to claims 9 through 17, in Paper No. 8 is acknowledged.
2. Claims 1 through 8 are hereby withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group I, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 8.

Drawings

3. The corrected or substitute drawings were received on October 3, 2001. These drawings are disapproved for the reasons set forth below.
4. The drawings filed on October 3, 2001 as well as the originally filed drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following claimed features must be shown or the feature(s) canceled from the claim(s), for example: HTS tape wound onto the bobbin and a binder applied to the HTS tape as cited in claims 9 and 17; a start lead of the coil secured to a lead terminal on one of the two side plates as cited in claim 14; a finish lead of the coil secured to a lead terminal on the other of the two side plates as cited in claim 15; and, a layer of copper foil applied to the coil with a rectangular cooling heat exchanger tube bonded thereto as cited in claim 15. No new matter should be entered.

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A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities: the related applications as cited on pages 1 through 3 and in the preliminary amendment lack corresponding serial numbers.

Appropriate correction is required.

Claim Objections

6. Claims 9 through 17 are objected to because of the following informalities: acronyms such as "HTS" appear in the claims. All acronyms should be replaced with a direct recitation of the corresponding terms written out in full for improved clarity and readability. Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 14 and 15 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession

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of the claimed invention. The originally filed disclosure fails to provide any relevant details or to clearly and fully describe or illustrate exactly how the steps recited in claims 14 and 15 are to be executed. For example, the drawings fail to show any of the lead terminals or the start lead or the finish lead or the copper foil layer or the rectangular cooling heat exchanger tube. Absent any disclosed details, not only is it not clear how the steps recited in claims 14 and 15 are to be performed, but it is also not clear that the applicant had possession of the subject matter claimed thereby.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 9 through 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 9 as written, it is not clear whether the limitations “compressing the HTS tape and the binder against the bobbin *with the plurality of blocks*” is intended to mean that the plurality of blocks are used to compress the tape and the binder against the bobbin or to mean that the tape and the binder are compressed against the bobbin where the bobbin has a plurality of blocks, thereby rendering the claim and claims 10 through 16 depending therefrom indefinite with regard to the intended scope of protection sought.

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There is insufficient antecedent basis in the claims for the following limitation in the claims: “*each layer* of the HTS tape” [claim 10, lines 2-3]; and, “the coil” [claim 14, line 3; claim 15, lines 3 and 5].

The limitations “applying a layer of copper foil to the coil with a rectangular cooling heat exchanger tube bonded *thereto*, and repeating step (c) *under heat*” as cited in claim 15 is not clearly set forth, thus rendering claim 15 indefinite with regard to the intended scope of protection sought. First of all, it is not clear to which previously recited element the indeterminate term “thereto” refers; recommend replacing “thereto” with a direct recitation of whichever element is referred to thereby. Second of all, it is not clear whether the heat being applied in the repeated step (c) is or is not the same as the heat applied to the HTS tape and to the binder via baking step (d).

The above is an indicative, but not necessarily an exhaustive, list of 35 U.S.C. 112, second paragraph, problems. Applicant is therefore advised to carefully review all of the claims for additional problems. Correction is required of all of the 35 U.S.C. 112, second paragraph problems, whether or not these were particularly pointed out above.

Claim Rejections - 35 U.S.C. § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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12. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by *Motowidlo et al.*

Motowidlo et al. discloses a method of producing a high temperature superconducting coil essentially as claimed, including: winding high temperature superconducting wire (which reads broadly on the tape as cited in the claim of the instant invention) onto a mandrel or bobbin; applying a binding ceramic layer or binder to the wound wire or "tape"; compressing or pressing the wire or "tape"; and heat treating or baking the wire or "tape" and the binder so as to produce the superconducting coil.

The reference thus reads on the claim.

13. Alternately, claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by *Heim*.

Heim discloses a method of producing a high temperature superconducting coil essentially as claimed, including: winding high temperature superconducting wire or cable (which reads broadly on the tape as cited in the claim of the instant invention) onto a winding means or bobbin; applying an epoxy or binder to the wound wire or cable; heat treating or baking the wire or cable and the epoxy or binder so as to produce the superconducting coil and to radially preload or compress the wire or cable along with the epoxy.

The reference thus reads on the claim.

14. The non-application of art against claims 14 and 15 should not be construed as an indication that the claims contain allowable subject matter but rather that the claims could not be examined on the merits due to indefiniteness.

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Allowable Subject Matter

15. Claims 9 through 13 and 16 would be allowable if rewritten or amended (without significant broadening) to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tanaka et al., *Freeman, Jr.*, *Sawada et al.*, *Bellows et al.*, *Mookerjee et al.*, *Yamada et al.*, *Bent et al.*, *Muranaka et al.*, *Youm et al.*, *Hahakura et al.*, *Seuntjens et al.*, *Scoudiere et al.*, and *Snitchler et al.* each discloses a method of making a superconducting magnetic coil.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric, whose telephone number is (703) 308-3925.

While she works a flexible schedule that varies from day to day and from week to week, Examiner Ciric may generally be reached at the Office during the work week between the hours of 10 a.m. and 6 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett, can be reached on (703) 308-0101. The fax phone number is (703) 305-3463.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

lvc

December 16, 2002


LJILJANA V. CIRIC
PRIMARY EXAMINER
ART UNIT 3743